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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,016	07/14/2003	Jack A. Zeineh	10225-128001	8634
20985 7590 02/20/2007 FISH & RICHARDSON, PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER SMITH, CAROLYN L	
			ART UNIT	PAPER NUMBER
			1631	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/20/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/620,016

Applicant(s)

ZEINEH ET AL.

Examiner

Carolyn L. Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2006 and 29 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36 and 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36 and 37 is/are rejected.
- 7) ☒ Claim(s) 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's amendments and remarks, filed 12/12/06 and 4/29/06, are acknowledged.

New claims 36 and 37 and cancelled claims 1-35 are acknowledged.

Applicant's arguments, filed 12/26/06 and 4/29/06, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from the previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claim is directed. The present title, filed 4/29/06, is directed to system for remote viewing and display of a slide, whereas in contrast the new claims are specifically directed to a method for simultaneously viewing remote microscope images.

Claims 36 and 37 are herein under examination.

Claim Objections

Claim 37 is objected to because of the following informality: Claim 37 recites the phrase "A method" which is incorrect as it should be written in the dependent form "The method" due to its dependency from an independent claim. Appropriate correction is required. This objection is necessitated by amendment.

Claims Rejected Under 35 U.S.C. § 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 36 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. These rejections are necessitated by amendment.

The preamble of claim 36 recites a method for simultaneously viewing remote microscopic images and producing a seamless view of real and virtual images. The body of claim 36 recites providing a virtual and real microscope slide as well as shifting regions and overlapping image regions to obtain the optimal image. As the preamble recites simultaneous, remote, and seamless viewing that is not recited in the body of the claim while the body of the claim recites obtaining an optimal image, it is unclear if the preamble or body of claim 36 is intended to control the metes and bounds of this invention. Clarification of this issue via clearer claim wording is requested. Claim 37 is also rejected due to its dependency from claim 36.

Claim 36 (last line) recites the phrase "live microscope slide" which is confusing, because a slide is not a living entity. Clarification of this issue via clearer claim wording is requested. Claim 37 is also rejected due to its dependency from claim 36.

Claim 36 (last line) recites the limitation "the live microscope slide". There is insufficient antecedent basis for this limitation in the claim as there is no previous mention of a "live" microscope slide. Clarification of this issue via clearer claim wording is requested. Claim 37 is also rejected due to its dependency from claim 36.

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Claim 37 recites the term “using” which is vague and indefinite. It is unclear what step or steps are encompassed by this term. Clarification of this issue via clearer claim wording is requested.

Claim 37 recites the limitation “the different regions” in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no previous mention of “different regions”. It is unclear if “the different regions” is referring to regions that were shifted (as recited in claim 36) or overlapping regions (as stated in claim 36). Clarification of this issue via clearer claim wording is requested.

Claim Rejections – 35 USC §102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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Claims 36 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Weissman et al. (US 5,602,674) with support from Merriam-Webster online dictionary (“remote” definition). This rejection is necessitated by amendment.

Weissman et al. disclose using computers to record slide data and superimposing computer output display on a microscope field for viewing by the user (col. 2, lines 13-17) which represents simultaneous viewing of microscope images. Weissman et al. disclose a method of providing a slide with a pathological specimen to be viewed (slide 5b of Figure 1) on a microscope slide stage (col. 3, lines 62-63; col. 5, lines 34-40; col. 9 line 64 to col. 10, line 2) which represents providing a real microscope slide. Weissman et al. disclose a computerized slide image (200 in Figure 3) on a screen (9 on Figure 2) showing representations of areas initially scanned (col. 10, lines 16-17) which represents providing a virtual slide formed from a processed image of a slide. Weissman et al. disclose a position encoder is affixed to the slide stage with the motion sequence connected to the computer to convert signals on the computer display screen (9) cursor position “+” in Figure 2 (col. 10, lines 10-15) which represents automatically and sequentially shifting regions of images. Weissman et al. disclose moving the stage linked with the computer to record and store motion and various viewing locations with indicia, such as black dots, correlating to the microscope viewing area location on the specimen as well as marking “indicia of interest” for subsequent retrieval (col. 5, lines 41-59 and col. 2, lines 45-52) wherein the correlated dot locations represent a seamless view and the subsequent retrieval of “indicia of interest” represent an optimal (most desirable) image. Weissman et al. disclose moving in an up-down direction for focus and then moving in an x-y direction during operation (col. 10, lines 2-9) which represents automatically and sequentially shifting regions to

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obtain an optimal image. Weissman et al. disclose the image of Figure 3a is indicative of up-down scanning and overlapping patterns wherein white areas (201) indicate portions not scanned which may constitute portions not covered by the specimen (col. 10, lines 16-22) which represents overlapping regions of images from slides. Weissman et al. disclose monitoring specimens with a viewing screen on a computer device and operators screening in overlapping regions or columns (col. 3, lines 54-55 and col. 5, lines 6-15) and computing the percentage of overlapping fields (col. 4, lines 28-30) which represents overlapping images. Weissman et al. disclose during subsequent reexamination of a specimen slide, a specimen is placed on a microscope stage and then previously recorded image slide is recovered wherein the cursor on the viewing screen of the representative slide image provides a continual correlation of position to the actual original microscope viewing area (col. 2, lines 59-63 and col. 6, lines 1-13) wherein the reexamining represents simultaneous viewing of remote microscope images ["remote" defined as separated by an interval, such as time, according to the Merriam-Webster online dictionary] and overlapping between the original virtual and subsequent real viewing images and continual correlation represents a seamless view of images. Weissman et al. disclose automated screening devices providing moving stages and a computer that is instructed to and generates time controlled markings (col. 1, lines 61-67 and col. 2, lines 53-56). Weissman et al. disclose density variations and using variations of a grayscale at each location on the image from a range wherein darker gray means overlapping screening and lighter gray areas mean less overlapping (col. 4, lines 15-34; col. 5, lines 12-15; col. 6, lines 14-20; and col. 7, line 46 to col. 8, line 23) which represents using different levels of compression (i.e. variations in reduced quantity or volume of grayness) in different regions, as stated in instant claim 37.

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Thus, Weissman et al. anticipate the instant invention.

Applicant submits that instant claim 36 now defines a virtual slide and a real microscope slide and automatically shifting positions and overlapping regions of those slides. Applicant summarizes Weissman et al. and argues that while Weissman et al. teach forming indicia of interest, they do not teach shifting regions and overlapping regions of images from the slides to form an optimal image. This statement is found unpersuasive as Weissman et al. disclose these limitations several times in the specification with examples as follows:

Weissman et al. disclose a position encoder is affixed to the slide stage with the motion sequence connected to the computer to convert signals on the computer display screen (9) cursor position "+" in Figure 2 (col. 10, lines 10-15) which represents automatically and sequentially shifting regions of images. Weissman et al. disclose moving the stage linked with the computer to record and store motion and various viewing locations with indicia, such as black dots, correlating to the microscope viewing area location on the specimen as well as marking "indicia of interest" for subsequent retrieval (col. 5, lines 41-59 and col. 2, lines 45-52) wherein the correlated dot locations represent a seamless view and the subsequent retrieval of "indicia of interest" represent an optimal (most desirable) image. Weissman et al. disclose moving in an up-down direction for focus and then moving in an x-y direction during operation (col. 10, lines 2-9) which represents automatically and sequentially shifting regions to obtain an optimal image. Weissman et al. disclose the image of Figure 3a is indicative of up-down scanning and overlapping patterns wherein white areas (201) indicate portions not scanned which may constitute portions not covered by the specimen (col. 10, lines 16-22) which represents overlapping regions of images from slides.

Applicant argues that instant claim 37 is unsuggested in the cited prior art. This statement is found unpersuasive as Weissman et al. disclose density variations and using variations of a grayscale at each location on the image from a range wherein darker gray means overlapping screening and lighter gray areas mean less overlapping (col. 4, lines 15-34; col. 5, lines 12-15; col. 6, lines 14-20; and col. 7, line 46 to col. 8, line 23) which represents using different levels of compression (i.e. variations in reduced quantity or volume of grayness) in

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different regions, as stated in instant claim 37. Applicant's arguments are deemed unpersuasive for the reasons given above.

Claims 36 and 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamentsky et al. (US 5,793,969). This rejection is necessitated by amendment.

Kamentsky et al. disclose a method for network reviewing of a specimen slide (col. 2, lines 54-55). Kamentsky et al. disclose a system for review and analysis of computer encoded microscope slides and specimens originally encoded from a microscope that is retrievable at all remote locations of a network and for comparing an original slide being examined (=real) or scanned image of slide that is stored (=virtual) with on-line library cell type images (=virtual) (abstract) which represents simultaneous viewing remote microscope images comprising virtual and real images as well as providing virtual and real microscope slides. Kamentsky et al. disclose determining whether there was overlapping of viewing (col. 1, lines 31-33). Kamentsky et al. disclose multiple simultaneous reviews of encoded information obtained from slide analysis procedures of a microscope slide including stored images of the slide (col. 2, lines 11-16). Kamentsky et al. disclose providing automatic location and review of flagged slide specimen view sites (col. 2, lines 30-32). Kamentsky et al. disclose moving the slide stage with a specimen slide that is operatively linked to computer means to correlate movement and record locations pursuant to automatic programmed instructions (col. 2, line 61 to col. 3, line 13). Kamentsky et al. disclose network reviewing of a specimen slide that was previously examined with computer encoded movement including correlated recorded markings with areas of interest

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that are recalled in a computer generated image of the slide (col. 3, lines 24-67) and then placing the specimen slide on the moveable slide stage and moving the stage in correlation with viewing areas with indicia markings on the computer generated image (col. 4, lines 1-14) which represents automatic and sequential shifting regions wherein the correlated viewings represent producing a seamless view of real and virtual images. Kamentsky et al. disclose marking areas of interest (col. 1, lines 57-65) and moving the stage containing the slide specimen to areas with correlated indicia of the computer generated image having a distinguished marking in order to be directly viewed with the microscope (col. 4, lines 9-14 and col. 9, lines 62-63) which represents shifting and overlapping (correlated) regions to obtain an optimal (desirable) image. Kamentsky et al. disclose relocating slide images at designated sites via a motor driven microscope with computer control (col. 5, lines 35-37 and col. 10, lines 6-10) which represents automatic and sequential shifting of images. Kamentsky et al. disclose using grayscale display information with variations in shades of gray and degrees of overlap (claim 4) and viewing slides or images of slides only at areas of interest (claim 13) which represents using different levels of compression (i.e. variations in reduced quantity or volume of grayness) in different regions, as stated in instant claim 37.

Thus, Kamentsky et al. anticipate the instant invention.

Applicant did not provide any arguments with regard to the Kamentsky et al. prior art reference and instant claims 36 and 37.

Conclusion

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR §1.6(d)). The Central Fax Center number for official correspondence is (571) 273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn Smith, whose telephone number is (571) 272-0721. The examiner can normally be reached Monday through Thursday from 8 A.M. to 6:30 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Irem Yucel, can be reached on (571) 272-0781.

February 14, 2007

A handwritten signature in black ink, appearing to read 'Carolyn S', is written over the printed name and title.

Carolyn Smith
Examiner
AU 1631